

CLAIMS

1. A network connection system for machine tools, in particular injection presses for plastics, comprising a plurality of machine tools (1) destined to be connected to a network to share common resources and exchange data, characterized in that said network is a wireless network and at least some of said machine tools (1) comprise, in
5 a permanent or semi-permanent manner, a device (12) for connection to said wireless network, through radio communication in frequency bands available for radio communications, said device (12) for connection to the wireless network being able to communicate with a server (4), also provided with a device (12) for connection to the wireless network and/or with at least one access point (20) connected to a hard-wired
10 network (10; 50).

2. A system according to claim 1, characterized in that between said devices (12) for connection to the wireless network and said at least one access point (20) data are exchanged in a frequency band ranging between 2.4 GHz and 2.5 GHz.

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3. A system according to claim 1 or 2, characterized in that at least some of said machine tools have a computer (11) in which said device (12) for radio communications is installed.

20 4. A system according to any one of the preceding claims, characterized in that said wireless network and/or said hard-wired network (10; 50) is/are managed by a server (4).

25 5. A system according to claim 4, characterized in that said server (4) is connected to said hard-wired network (10; 50) through a hard-wired connection (16; 52) by means of network boards (15) for transmission via cable.

30 6. A system according to claim 4, characterized in that said server (4) is connected to said hard-wired network (10; 50) through a radio link, by means of said radio communications device (12).

7. A system according to claim 6, characterized in that said server is a computer (11) of one of the machine tools (1).

8. A system according to any one of the preceding claims, characterized in that peripheral devices (17) are connected to said network (10; 50), through a hard-wired connection (16; 53), by means of network boards (15) for transmission via cable.

9. A system according to any one of the claims 1 to 7, characterized in that peripheral devices (17) are connected to said hard-wired network (10, 50) through a radio link, by means of devices (12) for radio transmission.

10. A system according to any one of claims 4 to 9, characterized in that said server (4) has devices (32, 35) for connection to another local network (LAN) (30) or to a WAN external network (31).

11. A system according to claim 10, characterized in that said device (32) for connection of the server (4) to another local network (LAN) (30) is a network board (32) for connection by cable or by radio link.

12. A system according to claim 10 or 11, characterized in that said device (35) for connection of the server (4) to another outside network (WAN) (31) is an analogical or digital modem (35).

13. A system according to claim 10 or 11, characterized in that said device (35) for connection of the server (4) to another outside network (WAN) (31) is a router.

14. A system according to any one of the preceding claims, characterized in that said network (10) is an Ethernet local network (LAN) of the linear type.

15. A system according to any one of claims 1 to 12, characterized in that said network (50) is an Ethernet local network (LAN) of the star type with a hub distributor device (2).